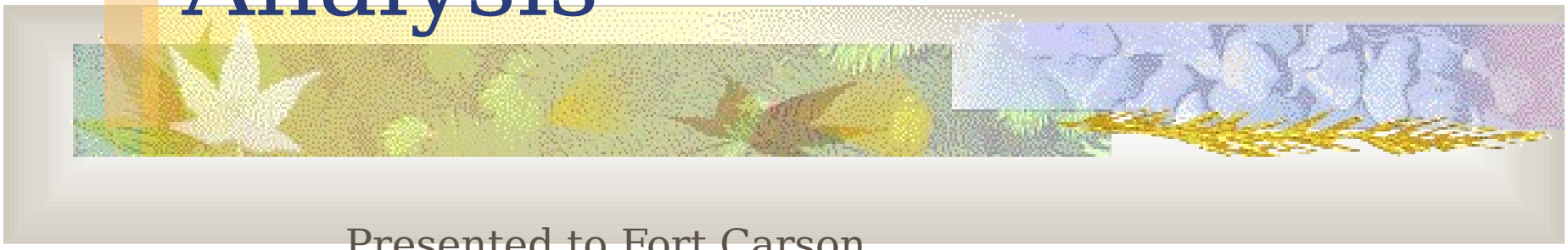
Fort Carson SEMS Gap Analysis



Presented to Fort Carson
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Presented by:
EnviroGroup Limited

Presentation Objectives

- Why implement a management system?
- What is a gap analysis?
- Project scope
- Methodology
- Results / discussion
- Next steps
- Conclusion

Why a Management System?

- Executive order 14138 deadline
- Provide standardization and longevity to environmental and sustainability programs!
- Achieve 25 year sustainability goals
- Enhance environmental performance!
- Increase efficiencies
- Reduce costs !!!

What Is a Gap Analysis?

- The difference between what is and what should be
- Foundation for the SEMS Implementation Plan

A Gap Analysis Is Not…

- An audit of the system
- A detailed compliance audit
- An EMS implementation plan

Project Scope

- Fort Carson Installation
  - Environmental programs
  - Units with potential for environmental impacts
  - Sustainability programs
- Standards
  - ISO 14001
  - Fort Carson Sustainability Framework

Overview of the Standards

- ISO 14001 Standard
  - 4.2 Policy Statement
  - 4.3 Planning
  - 4.4 Implementation & Operation
  - 4.5 Checking & Corrective Action
  - 4.6 Management Review
- Sustainability Framework
  - 1.0 Preparation
  - 2.0 Baseline
  - 3.0 Planning
  - 4.0 Implementation & Operation
  - 5.0 Checking & Corrective Action
  - 6.0 Management Review

Continual Improvement Cycle

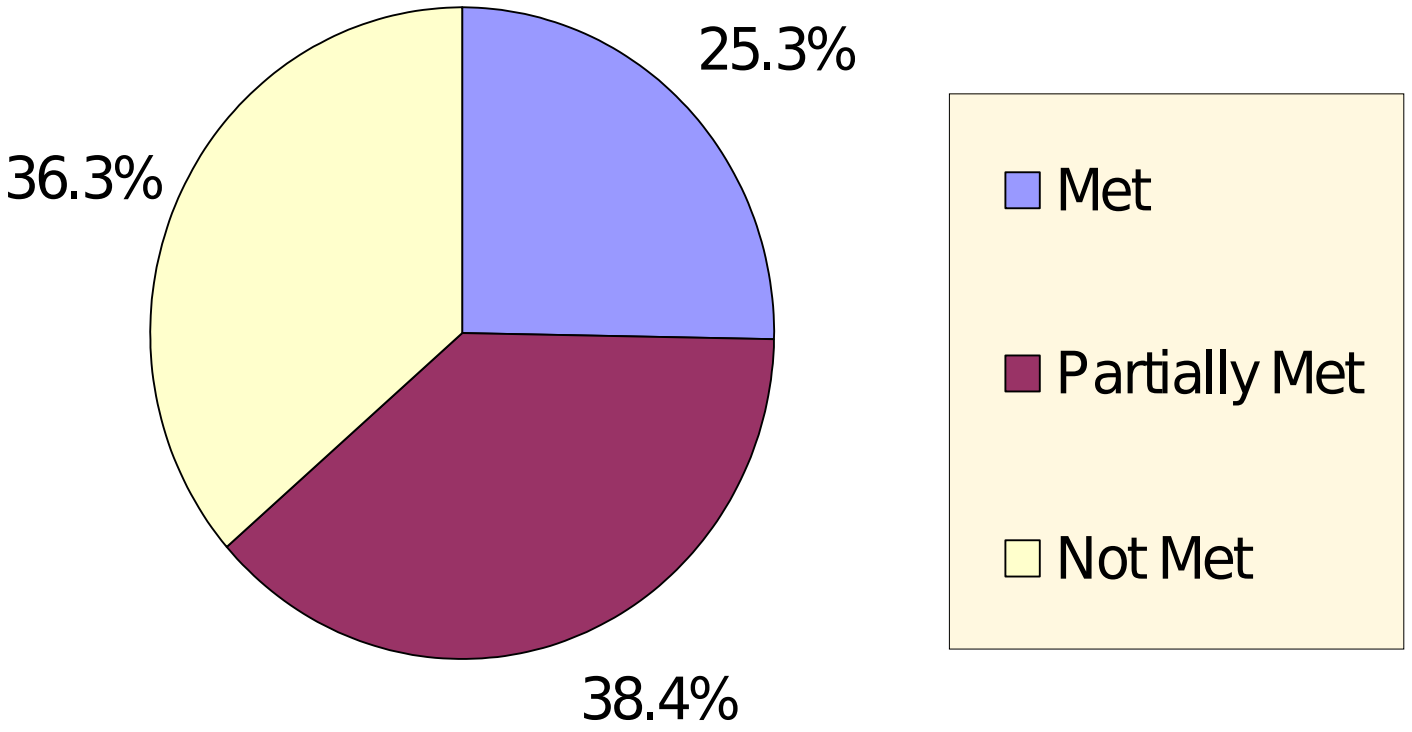
Methodology

- Comparison of existing programs against the ISO 14001 Standard and the Fort Carson Sustainability Framework.
  - 5 basic elements of the ISO 14001 Standard
    - 17 sub-elements
      - Between 2 and 9 specific requirements per sub-element
- Total of 82 requirements

Methodology (continued)

- Document review
- Interviews
- Site visits
- Records review

Gap Analysis Results


25.3%
36.3%
38.4%
Met
Partially Met
Not Met

Result Summary

Element of the Standard	Met	Partially Met	Not Met
Policy	67%	11%	22%
Aspects/Impacts	0%	25%	75%
Legal Requirements	100%	0%	0%
Objectives & Targets	71%	29%	0%
Management Programs	25%	50%	25%
Structure & Responsibility	0%	40%	60%
Training	0%	86%	14%
Communication	0%	100%	0%
EMS Documentation	0%	0%	100%
Document Control	0%	57%	43%
Operational Control	50%	50%	0%
Emergency Preparedness	75%	0%	25%
Monitoring & Measurement	25%	50%	25%
Nonconform & Corrective Action	0%	80%	20%
Records	17%	50%	33%
EMS Audit	0%	25%	75%
Management Review	0%	0%	100%

Policy

Requirements (9)	Met	Partially Met	Not Met
Defined by top management	X		
Is appropriate to nature & scale and environmental impacts of the Installation	X		
Committed to continual improvement	X		
Committed to complying to regulation	X		
Commits to long term sustainability	X		
Provides framework for setting objectives and targets	X		
Documented, implemented & maintained		X	
Is communicated to all employees			X

Planning

Environmental & Social Aspects

Requirements (4)	Met	Partially Met	Not Met
Establish and maintain a procedure for identifying environmental and social aspects			X
Determine the significance of the environmental or social impacts.			X
Consider the significant impacts when establishing objectives and targets		X	
Keep information on environmental and social impacts up-to-date			X

Legal & Other Requirements

Requirements (2)	Met	Partially Met	Not Met
Establish a procedure to identify and have access to legal and other requirements.	X		
Make sure that changes to legal and other requirements are identified and communicated to key personnel.	X		

Objective and Targets

Requirements (7)	Met	Partially Met	Not Met
Establish and maintain documented objectives and targets.	X		
Consider the Installation's significant aspects when setting objectives and targets.		X	
Consider the Installation's legal requirements	X		
Consider the Installation's technology options.	X		
Consider the Installation's financial, operational and business requirements	X		
Consider the views of interested	X		

Management Programs

Requirements (4)	Met	Partially Met	Not Met
Establish a program for meeting objectives and targets.	X		
Include the designation of responsibility for achieving the objectives and targets.		X	
Include the means and time frames by which the objectives and targets are to be achieved		X	
Amend the program to ensure environmental management is applied to new activities or changes to existing activities at the Installation			X

Implementation & Operation

Structure and Responsibility

Requirements (5)	Met	Partially Met	Not Met
Define and document the roles, responsibilities and authorities		X	
Communicate the roles, responsibilities and authorities to affected employees		X	
Management provides necessary resources for implementation and maintenance of the system			X
Top management appoints a specific management representative (MR) (s).			X
Ensure the MR has defined role for reporting on the SEMS to top			X

Training

Requirements (7)	Met	Partially Met	Not Met
Identify training needs		X	
Require all key personnel receive appropriate training.		X	
Installation employees must understand and comply with the requirements of the SEMS.			X
Installation employees are aware of significant environmental and social impacts of their work		X	
Installation employees are aware of their responsibilities with policies and procedures,		X	
Installation employees are aware of		X	

Communication

Requirements (3)	Met	Partially Met	Not Met
Communicating the Installation's significant aspects and the SEMS between various levels and functions of the Installation.		X	
Establish a procedure for receiving, documenting and responding to relevant communications from external parties		X	
Consider communicating the significant environmental and social aspects to external parties and document whether or not such communications were made.		X	

Documentation

Requirements (2)	Met	Partially Met	Not Met
Establish and maintain information that describes the core elements of the SEMS.			X
Establish and maintain information that provides direction to related information (e.g. links to related documents or other programs).			X

Document Control

Requirements (7)	Met	Partially Met	Not Met
Ensure documents can be located.			X
Ensure documents are periodically reviewed, revised as necessary and approved by authorized personnel.		X	
Ensure the current versions of relevant documents are available.		X	
Ensure obsolete documents are removed			X
Ensure any obsolete documents retained for knowledge preservation purposes are identified.			X
Ensure that documentation is legible, dated and readily identifiable		X	

Operational Control

Requirements (4)	Met	Partially Met	Not Met
Identify operations that are associated with significant environmental and social aspects.		X	
Plan operations associated with significant aspects to ensure they are carried out under specified conditions by establishing and maintaining documented procedures	X		
Stipulate the operating criteria in the documented procedures.	X		
Communicate relevant procedures and requirements to suppliers and contractors		X	

Emergency Preparedness

Requirements (4)	Met	Partially Met	Not Met
Procedures to identify the potential for and respond to accidents and emergency situations.	X		
Procedures to prevent and mitigate impacts that may be associated with accidents and emergency situations.	X		
Review and revise the emergency preparedness and response procedures, especially after the occurrence of an accident or spill	X		
Periodically test the emergency preparedness and response procedures, where practicable			X

Checking & Corrective Action

Monitoring & Measurement

Requirements (4)	Met	Partially Met	Not Met
Documented procedures to monitor and measure the key characteristics of the Installation's operations.		X	
Procedures to track performance, relevant operational controls and conformance with its objectives and targets.		X	
Monitoring equipment is calibrated and maintained and documented.			X
Documented procedure for evaluating compliance with relevant environmental legislation and regulations	X		

Corrective/Preventive Action

Requirements (5)	Met	Partially Met	Not Met
Procedures for defining responsibility for handling and investigating non-conformances.		X	
Procedures for taking action to mitigate any impacts caused.		X	
Procedures for initiating and completing corrective and preventive actions.		X	
Corrective or preventive actions are appropriate to the magnitude of problems the environmental or social impact encountered.		X	

Records

Requirements (6)	Met	Partially Met	Not Met
Procedures for the identification and maintenance of records, including training records and results of audits and reviews.		X	
Procedures for the disposition of records.		X	
Ensure records are legible, identifiable and traceable to the activity involved.			X
Ensure that records are stored and maintained such that they are readily retrievable and protected against damage, deterioration or loss.		X	
Have record retention policy	X		

Audits

Requirements (4)	Met	Partially Met	Not Met
Procedures for periodic system audits to determine conformance with the SEMS and that the system has been properly implemented and maintained.			X
Procedures to provide information on the results of the audit to top management.			X
Ensure that the audit program, is based on the environmental importance of the activity concerned and on the results of previous audits.		X	
Ensure the audit procedures cover the audit scope, responsibilities and			X

Management Review

Requirements (5)	Met	Partially Met	Not Met
Management must determine the intervals at which it will review the management system.			X
Management must review the system for continuing suitability, adequacy and effectiveness.			X
Ensure that the necessary information is collected and provided so that top management can carry out the evaluation.			X
The management review must be documented.			X
The review must address the need			X

Discussion

- Fort Carson’s existing programs meet or partially meet 64% of the requirements of the ISO 14001 Standard.
- 36% of the requirements have not been met

Discussion (continued)

- Areas of strength are:
  - Sustainability and Environmental Management Policy
  - Identifying legal requirements
  - Setting objectives and targets
  - Operational control
  - Emergency planning

Discussion (continued)

- Areas that require updating are:
  - Training
  - Internal and external communication
  - Document control
  - Monitoring & measurement
  - Records management
  - Non-conformance, corrective and preventive action.

Discussion (continued)

- Areas to be developed are:
  - Environmental & social aspects
  - Structure and responsibility
  - SEMS documentation
  - SEMS audits
  - Management review

Next Steps

- Convene SEMS development team
- Communicate intent to interested parties
- Develop an SEMS manual
- Develop an implementation plan
- Begin procedure development
- Begin the aspects / impacts analysis

Questions?